DM-RMC-100-F

DigitalMedia™

DigitalMedia™ Fiber Receiver & Room Controller 100

> DigitalMedia™ Fiber receiver and display controller

> DM® Fiber input supports up to 1000 ft (300 m) cable length[1]

> Provides one HDMI® or DVI display output[2]

> Handles HD video with Deep Color, 3D, and HDCP

> Handles Dolby® TrueHD, DTS-HD Master Audio™, and uncompressed 7.1 linear PCM audio

> Provides 10/100 Ethernet and USB HID mouse/keyboard ports

> Enables device control via CEC, IR, RS-232, and Ethernet

> Provides two relay control ports and one contact sensing input

> Allows quick, easy setup and diagnostics

> Low-profile surface mount design

> Universal power pack included

The DM-RMC-100-F provides a convenient one-box interface solution for a single display device as part of a complete Crestron® DigitalMedia™ system. It functions as a DM® Fiber receiver and control interface, providing a single HDMI® output along with Ethernet, USB HID, and a variety of control ports. Its compact, low-profile design allows the DM-RMC-100-F to be installed discreetly behind a flat panel display or above a ceiling mounted projector. It connects to the head end or source location using multimode fiber optic cable.[1]

DigitalMedia™ Fiber

As the leader in HDMI and control system technologies, Crestron developed DigitalMedia (DM) to deliver the first complete HD AV distribution system to take HDMI to a higher level. DigitalMedia allows virtually any mix of HDMI and other AV sources to be distributed throughout a home, office, school, or virtually any other facility. DigitalMedia Fiber distributes uncompressed digital video and audio signals up to 1000 feet (300 m) using multimode fiber optic cable[1].

Multimedia Display Interface

A single HDMI digital AV output port is provided on the DM-RMC-100-F, supporting HD 1080p60 video and WUXGA computer signals with HDCP, Deep Color, 3D, and multi-channel HD lossless audio — all through one connection. The HDMI output can also handle DVI signals using an appropriate adapter or interface cable[2].

Two fiber strands connect the DM-RMC-100-F to a DM switcher or transmitter, transporting video, audio, control, and networking signals all through a pair of SC type optical connections.[1] Multiple DM-RMC-100-Fs may be installed to handle each display in a multiroom distribution system, all fed from a central DM-MD series switcher. Or, a single DM-RMC-100-F can be fed straight from a DM Fiber transmitter. affording a simple solution for extending a computer or AV signal to a single display.

LAN Connectivity

Along with high-definition AV and control, DigitalMedia also integrates high-speed Ethernet networking for a total signal distribution solution. The DM-RMC-100-F includes a 10/100 Ethernet port, providing a convenient LAN connection for a local network device.

Keyboard/Mouse Extender

The DM-RMC-100-F also functions as a keyboard/mouse extender, allowing a USB HID-compliant keyboard and/or mouse to be connected at the display location and used to control a computer or other component located at the central equipment rack or some other remote location.

Embedded Device Control

The primary objective of every Crestron system is to enable precisely the control desired for a seamless user experience. The DM-RMC-100-F includes built-in RS-232, IR, and Ethernet control ports to allow programmable control of the display device connected to it. But, it can also provide an alternative to such conventional control methods by harnessing the CEC (Consumer Electronics Control) signal embedded in HDMI. Through its connection to the control system, the DM-RMC-100-F provides a gateway for controlling the display device right through the HDMI connection, potentially eliminating the need for any dedicated control wires or IR emitters.

Two low-voltage relay ports are also included on the DM-RMC-100-F for control of a projection screen or lift. In addition, a single digital input port is provided to accommodate a power sensor or contact closure for enhanced automation and monitoring.

Low-Profile Installation

The DM-RMC-100-F mounts to a wall, ceiling, or other flat surface. At less than 1-1/2 inches (33 mm) deep, it fits easily behind a flat panel display or above a ceiling-mounted projector. Connections are positioned on the top and bottom of the unit. An array of indicators is provided on the front panel for easy setup and troubleshooting.

Please refer to the DigitalMedia Resources Webpage at http://www.crestron.com/dmresources/ for additional design tools and reference documents.

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DM-RMC-100-F – Top & Bottom Views

SPECIFICATIONS

Video

Input Signal Type: DM® Fiber (DigitalMedia™ over multimode fiber optic cable)
Output Signal Types: HDMI®, DVI[2]
Formats: HDMI w/Deep Color & 3D, DVI, HDCP content protection support
Input Resolutions, Progressive: 640x480@60Hz, 720x480@60Hz (480p), 720x576@50Hz (576p), 800x600@60Hz, 848x480@60Hz, 852x480@60Hz, 854x480@60Hz, 1024x768@60Hz, 1024x852@60Hz, 1024x1024@60Hz, 1280x720@50Hz (720p50), 1280x720@60Hz (720p60), 1280x768@60Hz, 1280x800@60Hz, 1280x960@60Hz, 1280x1024@60Hz, 1360x768@60Hz, 1365x1024@60Hz, 1366x768@60Hz, 1400x1050@60Hz, 1440x900@60Hz, 1600x900@60Hz, 1600x1200@60Hz, 1680x1050@60Hz, 1920x1080@24Hz (1080p24), 1920x1080@25Hz (1080p25), 1920x1080@50Hz (1080p50), 1920x1080@60Hz (1080p60), 1920x1200@60Hz, 2048x1080@24Hz, 2048x1152@60Hz, plus any other resolution allowed by HDMI up to 165MHz pixel clock
Input Resolutions, Interlaced: 720x480@30Hz (480i), 720x576@25Hz (576i), 1920x1080@25Hz (1080i25), 1920x1080@30Hz (1080i30), plus any other resolution allowed by HDMI up to 165MHz pixel clock
Output Resolutions: Matched to input

Audio

Input Signal Type: DM Fiber
Output Signal Type: HDMI
Formats: Dolby Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby® TrueHD, DTS®, DTS-ES, DTS 96/24, DTS-HD High Res, DTS-HD Master Audio™, Up to 8ch PCM

Communications

DigitalMedia: DM Fiber, HDCP management, EDID format management, CEC
Ethernet: 10/100 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, DHCP
USB: Supports USB HID class devices

Connectors – Bottom

SENS: (1) 2-pin 3.5mm detachable terminal block;
Digital/contact closure sensing input;
Rated for 0-24 Volts DC, referenced to GND;
Input Impedance: 2.2k Ohms pulled up to 5 Volts DC;
Logic Threshold: 2.5 Volts DC nominal with 1 Volt hysteresis band

HDMI: (1) 19-pin Type A HDMI female;
HDMI digital video/audio output;
Also supports DVI[2]

USB: (1) USB Type A female; USB host port for connection of a mouse/keyboard or other USB HID-compliant device

RELAY 1 – 2: (1) 4-pin 3.5mm detachable terminal block comprising (2) normally open, isolated relays;
Rated 1 Amp, 30 Volts AC/DC;
MOV arc suppression across contacts

COM: (1) 5-pin 3.5mm detachable terminal block;
Bidirectional RS-232 port;
Up to 115.2k baud, hardware and software handshaking support

IR 1 – 2: (1) 4-pin 3.5mm detachable terminal block;
Comprises (2) IR/Serial ports;
IR output up to 1.1 MHz;
1-way serial TTL/RS-232 (0-5 Volts) up to 19200 baud

Connectors – Top

LAN: (1) 8-wire RJ45 female;
10Base-T/100Base-TX Ethernet port

DM INPUT, D & M: (1) DM Fiber input composed of (2) SC female optical fiber connectors; Connects to DM Fiber output of a DM switcher, transmitter, or other DM device via CresFiber® 8G fiber optic cable[1]

Ground: (1) 6-32 screw, chassis ground lug

PWR: (1) 2-pin 3.5mm detachable terminal block, 24 Volt DC power input; PW-2407WUL power pack included

Controls & Indicators

PWR: (1) green LED, indicates operating power supplied via local power supply
DM LINK: (1) green LED, indicates DM link status
VIDEO: (1) red/green dual-color LED, indicates video signal presence and lock status
CNTRL: (1) red/green dual-color LED, indicates Ethernet connection and control system communication status

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SETUP: (1) red LED and (1) miniature recessed pushbutton, for Ethernet setup
RESET: (1) miniature recessed pushbutton, for hardware reset
LAN: (2) LEDs, green LED indicates Ethernet link status, amber LED indicates Ethernet activity

Power Requirements

Power Pack: 0.75 Amps @ 24 Volts DC;
100-240 Volts AC, 50/60 Hz power pack, model PW-2407WUL included

Environmental

Temperature: 41° to 104°F (5° to 40°C)
Humidity: 10% to 90% RH (non-condensing)
Heat Dissipation: 21 BTU/Hr

Enclosure

Chassis: Metal, black finish
Mounting: Surface mount (mounting bracket included)

Dimensions

Height: 5.66 in (144 mm)
Width: 5.15 in (131 mm)
Depth: 1.29 in (33 mm) with mounting bracket

Weight

17.6 oz (499 g)

MODELS & ACCESSORIES

Available Models
DM-RMC-100-F: DigitalMedia™ Fiber Receiver & Room Controller 100

Included Accessories
PW-2407WUL: Wall Mount Power Pack 24VDC, 0.75A, Universal (Qty. 1 included)

Available Accessories
CRESFIBER8G-NP: CresFiber® 8G Multimode Fiber Optic Cable, 50/125 x4 breakout, non-plenum
CRESFIBER8G-P: CresFiber® 8G Multimode Fiber Optic Cable, 50/125 x4 breakout, plenum
CRESFIBER-CONN-SC50UM-12: CresFiber® Fiber Optic Cable Connector (AFL Telecommunications™), SC 50μm, 12-Pack
CRESFIBER-TK: CresFiber® Termination Kit (AFL Telecommunications™)
CRESFIBER-DUAL-SC-P: CresFiber® Duplex Fiber Optic Cable Assembly, 50/125, SC, Plenum
CRESFIBER-DUAL-SC-ARMORED-P: CresFiber® ARMORED Duplex Fiber Optic Cable Assembly, 50/125, SC, Armored, Plenum
CRESFIBER-SINGLE-SC-CLEAR-NP: CresFiber® CLEAR Simplex Fiber Optic Cable Assembly, 50/125, SC, Non-Plenum
CBL Series: Crestron® Certified Interface Cables

MP-WP Series: Media Presentation Wall Plates
MPI-WP Series: Media Presentation Wall Plates - International Version
CNSP-XX: Custom Serial Interface Cable
IRP2: IR Emitter Probe
CNXRMCS: TV Current Sensor

Notes:

1. The maximum DigitalMedia Fiber cable length is 1000 ft (300 m) using CRESFIBER, CRESFIBER8G, CRESFIBER-DUAL-SC, or generic OM2/OM3 duplex multimode fiber optic cable. Refer to the Crestron DigitalMedia Design Guide, Doc. #4546 for complete system design guidelines. All cable sold separately.
2. HDMI requires an appropriate adapter or interface cable to accommodate a DVI signal. CBL-HD-DVI interface cable available separately.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/salesreps or by calling 800-237-2041.

Specifications subject to change without notice. Crestron is not responsible for errors in typography or photography.

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CRESTRON®

5.66 in
(14.38 cm)

5.15 in
(13.08 cm)

1.14 in
(2.9 cm)